

REMARKS

Favorable consideration of this application is respectfully requested.

Claims 74-94 are currently active in this case and claims 74, 78, 82, 85-88, 90, 92-93 have been amended by way of the present amendment. Each amended claim is supported by the specification and claims as originally submitted and no new matter has been added.

In the outstanding Office Action, Claims 74-92 were rejected under 35 U.S.C. 112, first paragraph as failing to comply with the written description requirement and Claims 95-91 were rejected by virtue of their dependence from Claim 74.

Applicant has made minor changes to the specification. Each change is supported in multiple places within Applicant's specification as originally submitted and no new matter has been added.

Applicant respectfully traverses the rejections of Claims 74 and 92 under 35 USC 112, first paragraph, as being non-enabled. First, as to the *"memory protection unit,"* Applicant agrees that the term *"memory protection unit"* does not make a specific letter for letter match in a text search of Applicant's specification. However, the concept and clear intent of a unit in a configuration of electronics and/or processes to protect memory is clearly described throughout Applicant's specification. In fact, Applicant's title of the invention is *"Method And Apparatus For Computer memory Protection And Verification."* Moreover, Applicant's background points out numerous examples of how memory has been protected in the past, along with inefficiencies in those prior processes. Applicant's invention solves many of those issues by making protection of memory more convenient and more secure. To that end, Applicant's specification clearly shows and describes, for example, a set of electronics including, for example, memories (e.g., program memory 30/54, non-volatile memory 59, and microcontroller memory),

microcontrollers, and switching mechanisms (e.g., utilized to render non-compliant program memory inoperative as to a processor that implements, for example, a gaming machine). Accordingly, Applicant respectfully asserts that *"memory protection unit"* is appropriate claim language in view of clear recitation of electronics and processes that protect a gaming machine (or other devices) from non-compliant memory.

As to the secondary secure memory, Applicant has amended the claims to read *"secondary memory."* As used in the claims, the secondary memory stores the signature, check, or other verification as noted in the applicable claims. The secondary memory as such is clearly described throughout Applicant's specification, including, for example, several instances of non-volatile memory (e.g., Fig. 4, and corresponding description). In another embodiment, the secondary memory is described as a memory in the remote device microcontroller (e.g., non volatile memory 59).

As to primary and secondary memory, Applicant respectfully notes that the primary or secondary nature of the memories is used in the claims to distinguish the memories rather than indicate a particular structure or function. The claim language could just as easily cite a first memory and a second memory. As such, no specific reference or description in the specification as to first and second (or primary and secondary) memories is required, only examples for first and second memories as discussed herein.

As to program memory, Applicant respectfully submits that one of ordinary skill in the art would understand this to mean memory that stores a program on a processor. As described in Applicant's specification, for example, page 1, line 30, *"A program memory is typically an electronic device that contains a set of instructions by means of which a microcomputer plays and presents a game."* The Examiner notes flash memory 30 (fig. 3), and Applicant notes that the illustrated flash memory, as further described in Applicant's specification (e.g., page 20, line 9 *"program memory 30,"* page 21, line 21, *"program memory 30"*), is an example

of a program memory to which various embodiments of the present invention are directed.

As to which of the memories discussed in Applicant's specification is intended to be the primary memory device, Applicant respectfully responds that any of the above could be the primary memory device, but that specific non/limiting examples are provided above. However, Applicant's invention is related to protecting memory and should not be restricted to protecting one specific instance of memory, whether that memory is a program memory, data memory, or any other type of memory (unless the claim specifically indicates that the primary memory is a program memory). As to the claims, the primary memory should be considered the memory which the contents are intended to be protected by the processes or devices of the present invention. Applicant believes this to be clearly shown in Claim 74 that it is the contents that are being verified by a comparison of first and second signatures.

As to the Examiner's comment regarding Paragraph [0058], Applicant again respectfully notes that the electrically accessible memory 30 (aka program memory) is an example of program memory that is protected by an embodiment of the present invention. Therefore, Applicant concurs to the extent that memory 30 is a non-limiting example of a primary memory as recited in Claim 74. However, Applicant asserts no inconsistency with indicating that the secondary memory is separate from the primary memory. That the embodiment of Fig. 2 indicates the memory 30 is part of a "secure memory device" does not mean that the secure memory device cannot have one or more secondary memory devices that are separate from the primary memory device.

As to the which component is the intended control processor, Applicant starts by noting the memory to be protected is generally *"A program memory is typically an electronic device that contains a set of instructions by means of which a microcomputer plays and presents a game."* The microcontrollers of Fig. 2, 44 controls operations of the memory protection processes (e.g., setting switches,

preparing signatures, comparing signatures, etc). The uP of Fig. 3 is a controller for the remote verification unit as already noted above by the Examiner. 292 in Figs. 1 and 4 is the intended control processor, but only as a non-limiting example of a microcomputer that plays and presents a game (or other program) that is protected in the primary memory (corresponding to the claim language *"disconnecting the primary memory device from a control processor that operates based on instructions stored in the primary memory device if the first signature and the second signature do not match."*)

Therefore, Applicant respectfully notes that each claim limitation corresponds, by way of non-limiting examples to the drawings and written description in Applicant's specification such that that an ordinarily skilled artisan, upon review of Applicants' specification, would be enabled to make and/or use Applicant's invention. Accordingly, Applicant respectfully requests that the rejections based on 35 USC 112, first paragraph be withdrawn. Accordingly, Applicant respectfully submits that Claims 74 and 92 are patentable.

Applicant has amended Claim 93 consistent with the original intent and scope of Claim 93. Applicant respectfully submits that any perceived inconsistencies or antecedent basis issues are now moot. Accordingly, Applicant respectfully submits that Claim 93 is patentable.

Based on the patentability of independent Claims 74, 92, and 93, Applicant further respectfully submits that dependent Claims 75-91 and 94 are also patentable.

Consequently, no further issues are believed to be outstanding, and it is respectfully submitted that this case is in condition for allowance. An early and favorable action is respectfully requested.

The Commissioner is hereby authorized to charge any fees (or credit any overpayment) associated with this communication and which may be required under 37 CFR §1.78 to Deposit Account No. 50-2603, referencing Attorney Docket No. 350804.00400.

Respectfully submitted,
REED SMITH LLP

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